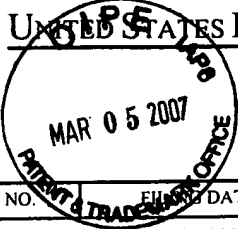




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,118	01/09/2001	Urbain Alfred Von der Embse		4398

7590 12/08/2006
URBAIN A. VON DER EMBER
7323 W. 85TH STREET
WESTCHESTER, CA 90045-2444

EXAMINER

DO, CHAT C

ART UNIT PAPER NUMBER

2193

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.	Applicant(s)	
09/826,118	VON DER EMBSE, URBAIN ALFRED	
Examiner	Art Unit	
Chat C. Do	2193	

The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/05/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This communication is responsive to Amendment filed 10/06/2006.
2. Claims 7-12 are pending in this application. Claim 7 is independent claims. In Amendment, claims 1-6 are cancelled and claims 7-12 are newly added. This Office Action is made final.

Information Disclosure Statement

3. The information disclosure statement filed 07/05/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it does not provide a copy of all the non-patent literature documents, particularly the references by McClellan et al., Vaidyanathan et al., T. Blu, and K. C. Ho et al.. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations in independent claim 7



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must be shown or clearly point out the detail in the drawings corresponding to the limitations cited in the claim or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 7-12 are objected to because of the following informalities:

Re claim 7, the applicant should:

- Place the acronym the parenthesis like "least-squares (LS)" in lines 1-2 of the claim;
- Define the range of the limitation "steps 3, 4, etc.";

- Write out the full name for FIR acronym as “finite impulse response (FIR)”; and
- Re-write the statement in line 1 of page 3 in claim 7.

Re claims 8-12, the applicant should correct in these claims with similar objections cited above.

Further for claim 12, it is an incomplete claim which is missing a period (.) at the end of the claim. In addition, it is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 7-11 as cited throughout the claim. See MPEP § 608.01(n). Accordingly, the claim 12 has not been further treated on the merits.

In general, appropriate correction is required for all similar objections throughout the claims 7-12.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 7, there are so many limitations (e.g. said mother wavelet frequency response in line 23-24, said LS error metrics in line 34....) lack of antecedence basis because they are not previously define or mention in the claim or its preceding claims. In

addition, the limitations cited in the claim are so unclear and mis-descriptive because the limitations are just defining the properties of wavelet rather than the step(s) or procedure(s) to design a digital mother wavelets at baseband for multi-resolution waveforms and filters as clearly defined in the pre-amble to the claim.

Similarly, claims 8-12 have the same rejections. The applicant is required to identify and correct all the indefinite limitations cited throughout claims 7-12.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 7-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-12 cite a method for designing a digital mother Wavelets according to a mathematical formula. In order for claims to be statutory, claims must include a physical practical application or a concrete, useful, and tangible result. However, claims 7-12 merely disclose steps and properties of the digital mother Wavelets without disclosing its practical application or the tangible result. Therefore, claims 7-12 are directed to non-statutory subject matter.

Response to Amendment

10. The amendment filed 10/06/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall

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introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Most limitations cited in claims 7-12 are not clearly defined or found in the original disclosure.

The inserted portion in page 43-44 of the specification.

Applicant is required to cancel the new matter or to clearly in detail point out where in the original specification support the added material in the reply to this Office Action.

Response to Arguments

11. Applicant's arguments with respect to claims 7-12 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

13. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

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A listing of registered patent attorneys and agents is available on the USPTO Internet web site <http://www.uspto.gov> in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2193

December 5, 2006


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

of

Complete if Known

Application Number	09/826,118
Filing Date	01/09/2001
First Named Inventor	Urbain A. von der Embse
Art Unit	2193
Examiner Name	Chat C. Do
Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		MCCLELLAN et. al., "A Computer Program for Designing Optimal FIR Linear Filters", IEEE Trans. Audio Electroacoust. Vol. AU-21, Dec 1973, pp 506-526	
		VAIDYANATHAN et. al., "Eigenvalues: A New Approach to Least-Squares FIR Filter Design and Applications Including Adaptive Filters", IEEE Trans. on Circuits and Systems, Vol. CAS-34, No. 2, Jan. 1987, pp 11-23	
CD		HAITAO GUO et. al., "Wavelet Transform based Fast Approximate Fourier Transforms", 1997 ICASSP IEEE INT CONF ACOUST SPEECH SIGNAL PROCESS PROC, pp 1973-1976	
		T. BLU, "A New Design Algorithm for two-band orthogonal rational filter banks and orthonormal rational wavelets", IEEE Signal Processing, June 1998, pp. 1494-1504	
		K. C. HO et. al., "Optimum Discrete Wavelet Scaling and its Application to Delay and Doppler Estimation", IEEE Signal Processing, Sept. 1998, pp. 2285-2290	
CD		H. S. STONE, "Progressive Wavelet Correlation Using Fourier Analysis", 01/1999 IEEE Transactions on Signal Processing, Vol. 47, No. 1, pp. 97-107	
CD		A. M. GRIGORYAN, "2-D and 1-D Multipaired Transforms: Frequency-Time Type Wavelets", 02/2001 IEEE Transactions on Signal Processing, Vol. 49 No. 2, pp 344-353	

Examiner
Signature

/Chat Do/ (12/05/2006)

Date
Considered

12/05/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1458, Alexandria, VA 22313-1458.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IDS - 07/05/2006

Substitute for form 1449/APTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

of

Complete if Known

Application Number	09/826,118
Filing Date	01/09/2001
First Named Inventor	Urbain A. von der Embse
Art Unit	2193
Examiner Name	Chat C. Do
Attorney Docket Number	

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
CD		US- 5,526,446	06/11/1996	Adelson et al.	
CD		US- 5,953,388	09/14/1999	Walnut et al.	
CD		US- 6,584,111	06/24/2003	Aweya et al.	
CD		US- 6,643,406	11/04/2003	Hajjahmad et al.	
CD		US- 5,453,945	09/26/1995	Tucker et al.	
CD		US- 6,064,768	05/16/2000	Haji et al.	
CD		US- 6,687,422	02/03/2004	Chen et al.	
CD		US- 6,477,553	11/05/2002	Druck	
CD		US- 5,845,243	12/01/1998	Smart et al.	
CD		US- 5,937,009	08/10/1999	Wong et al.	
CD		US- 6,091,777	07/18/2000	Guetz et al.	
CD		US- 6,182,035	01/30/2001	Mekuria et al.	
		US-			
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FOREIGN PATENT DOCUMENTS

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner
Signature

/Chat Do/ (12/05/2006)

Date
Considered

12/05/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by



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